

What is claimed is:

1. ~~An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:~~

- a) an amino acid sequence of SEQ ID NO:1,
- b) a naturally-occurring amino acid sequence having at least 90% sequence identity to the sequence of SEQ ID NO:1,
- c) a biologically-active fragment of the amino acid sequence of SEQ ID NO:1, and
- d) an immunogenic fragment of the amino acid sequence of SEQ ID NO:1.

2. An isolated polypeptide of claim 1, having a sequence of SEQ ID NO:1.

~~3. An isolated antibody which specifically binds to a polypeptide of claim 1.~~

4. A diagnostic test for a condition or disease associated with the expression of GAPIP in a biological sample comprising the steps of:

- a) combining the biological sample with an antibody of claim 3, under conditions suitable for the antibody to bind the polypeptide and form an antibody: polypeptide complex; and
- b) detecting the complex, wherein the presence of the complex correlates with the presence of the polypeptide in the biological sample.

5. The antibody of claim 3, wherein the antibody is:

- (a) a chimeric antibody;
- (b) a single chain antibody;
- (c) a Fab fragment;
- (d) a F(ab')₂ fragment; or
- (e) a humanized antibody.

6. A composition comprising an antibody of claim 3 and an acceptable excipient.

7. A method of diagnosing a condition or disease associated with the expression of GAPIP in a subject, comprising administering to said subject an effective amount of the composition of claim 6.

8. A composition of claim 6, wherein the antibody is labeled.

9. A method of diagnosing a condition or disease associated with the expression of
GAPIP in a subject, comprising administering to said subject an effective amount of the composition
5 of claim 8.

Sub B3 10. A method of preparing a polyclonal antibody with the specificity of the antibody of
claim 3 comprising:

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- a) immunizing an animal with a polypeptide of SEQ ID NO:1 or an immunogenic
fragment thereof under conditions to elicit an antibody response;
 - b) isolating antibodies from said animal; and
 - c) screening the isolated antibodies with the polypeptide thereby identifying a polyclonal
antibody which binds specifically to a polypeptide of SEQ ID NO:1.

15 11. An antibody produced by a method of claim 10.

12. A composition comprising the antibody of claim 11 and a suitable carrier.

20 13. A method of making a monoclonal antibody with the specificity of the antibody of
claim 3 comprising:

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- a) immunizing an animal with a polypeptide of SEQ ID NO:1 or an immunogenic
fragment thereof under conditions to elicit an antibody response;
 - b) isolating antibody producing cells from the animal;
 - c) fusing the antibody producing cells with immortalized cells to form monoclonal
antibody-producing hybridoma cells;
 - d) culturing the hybridoma cells; and
 - e) isolating from the culture monoclonal antibody which binds specifically to a
polypeptide of SEQ ID NO:1.

30 14. A monoclonal antibody produced by a method of claim 13.

Sub B3 15 A composition comprising the antibody of claim 14 and a suitable carrier.

16. The antibody of claim 3, wherein the antibody is produced by screening a Fab expression library.

17. The antibody of claim 3, wherein the antibody is produced by screening a recombinant immunoglobulin library.

18. A method for detecting a polypeptide of SEQ ID NO:1 in a sample comprising the steps of:

- a) incubating the antibody of claim 3 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and
- b) detecting specific binding, wherein specific binding indicates the presence of a polypeptide of SEQ ID NO:1 in the sample.

19. A method of purifying a polypeptide of SEQ ID NO:1 from a sample, the method comprising:

- a) incubating the antibody of claim 3 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and
- b) separating the antibody from the sample and obtaining purified polypeptide of SEQ ID NO:1.